217/782-2113

CONSTRUCTION PERMIT – REVISED

PERMITTEE

Caterpillar, Inc. - Mossville Engine Center
Attn: J. F. Dallmeyer
Building VV -- MOS 52
Mossville, Illinois 61552-0600

Application No.: 02040058 I.D. No.: 143810AAB
Applicant's Designation: E-COAT PNT Date Received: October 25, 2002
Subject: Coating Operations
Date Issued: November 7, 2002
Location: Old Galena Road and Cedar Hills Drive, Mossville

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a coating system which will replace all existing coating operations at the facility and temporary relocation of an existing electro-coat paint operation from Building DD to Building BB as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Unit Specific Conditions

1.1 Unit: Coating Lines
Control: None

1.1.1 Description

The coating operations will be used to apply coatings to engines. These new coating operations will replace all existing coating operations at the facility. The coating operation is equipped with a bake oven which will bake the coating at a temperature less than 194 degrees F.

1.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Coating Line	Coating of Engines, Bake Oven and Associated Cleanup	None

1.1.3 Applicability Provisions and Applicable Regulations

a. The "affected coating line" for the purpose of these unit-specific conditions, is a coating line as described in Conditions 1.1.1 and 1.1.2.

b. The affected coating line is subject to 35 IAC Part 215, Subpart F, Coating Operations: The Permittee shall not cause or allow the emission of volatile organic material to exceed the following limitations on coating materials, excluding water and any compounds which are specifically exempted from the definition of volatile organic material, delivered to the coating applicator:

	kg/l	lb/gal
Extreme Performance Top Coat Air Dried	0.52	4.3

c. The affected coating line is subject to 35 IAC 212.321(a), which provides that the Permittee shall not cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].

1.1.4 Non-Applicability of Regulations of Concern

a. The affected coating line is not required to meet the limitations of 35 IAC Part 215, Subpart K (35 IAC 215.301 or 215.302) because the affected coating line is required to meet 35 IAC 215.204 [35 IAC 215.209].

b. This permit is issued based on the affected coating line not being a new or reconstructed major source of hazardous air pollutants, so that it is not subject to a case-by-case determination of Maximum Achievable Control Technology (MACT), pursuant to Section 112(g) of the Clean Air Act.

c. The source has addressed the applicability and compliance of 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The limits established by this permit are intended to ensure that the modification addressed in this construction permit does not constitute a major modification pursuant to this rule.

1.1.5 Operational Limits

Operation of the affected coating line shall not exceed the following limits:

a. VOM usage (includes coating and solvent): 16.4 tons/month and 164 tons/year; and

b. i. Individual HAP usage (includes coating and solvent): 1.0 tons/month and 9.9 tons/year; and

ii. Combination of all HAP usage (includes coating and solvent): 2.5 tons/month and 24.9 tons/year; and

1.1.6 Emission Limitations

a. i. Emissions from the affected coating line including emissions attributable to solvent cleanup shall not exceed the following limits. These limits are calculated using the material usage limits in Condition 1.1.5 and the compliance procedures specified in Condition 1.1.12.

PM Emissions		VOM Emissions	
(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)
0.2	2.4	16.4	164.0

ii. The emissions of hazardous air pollutants (HAP) as listed in Section 112(b) of the Clean Air Act from the affected coating line shall not exceed the following limits:

Individual HAP Emissions	
(Tons/Month)	(Ton/Year)
1.0	9.9

Combination of HAP Emissions	
(Tons/Month)	(Ton/Year)
2.5	24.9

b. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

1.1.7 Testing Requirements

The VOM content of coatings shall be determined by Method 24, 40 CFR Part 60, Appendix A. Any alternate test method must be approved by the Illinois EPA which shall consider data comparing the performance of the proposed alternative to the performance of the approved test method(s). If the Illinois EPA determines that such data demonstrates that the proposed alternative will achieve results equivalent to the approved test method(s), the Illinois EPA shall approve the proposed alternative [35 IAC 215.208(a)].

1.1.8 Monitoring Requirements

None

1.1.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected coating line to demonstrate compliance with Conditions 1.1.5 and 1.1.6:

a. VOM content of each material used (lb VOM/gallon and weight percent VOM);

b. HAP content of each material used (weight percent);

c. Amount of each material used (pounds/month and pounds/year);

d. PM emissions (lb/hour, tons/month and tons/year); and

e. VOM emissions (tons/month and tons/year); and

f. Individual HAP emissions (tons/month and tons/year) and the combination of all HAP emissions (tons/month and tons/year).

1.1.10 Reporting Requirements

The Permittee shall notify the Illinois EPA, Compliance Section, of deviations of the affected coating line with the permit requirements as follows. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Emissions of PM, VOM and/or HAP in excess of the limits specified in Condition 1.1.6.

1.1.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected coating line without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

Usage of different materials for the affected coating line, provided that the Permittee continues to comply with the conditions of this permit.

1.1.12 Compliance Procedures

a. Compliance with Condition 1.1.3(b) shall be based on the recordkeeping requirements in Condition 1.1.9 and the testing requirements in Condition 1.1.7.

b. Compliance with the emission limits established in Condition 1.1.6 shall be based on the recordkeeping requirements in Condition 1.1.9 and the emission factors and formulas listed below:

i. To determine compliance with Condition 1.1.6(a)(i), VOM emissions from the affected coating line shall be calculated based on the following:

VOM Emissions (tons) = (Material Usage, pounds) x (VOM Content of Material, weight percent) / (2000 pounds/ton)

ii. To determine compliance with Conditions 1.1.3(c) and 1.1.6(a)(i), PM emissions from the affected coating line shall be calculated based on the following:

PM Emissions = (Amount of Component B Urethane Catalyst + amount of Yellow Urethane Catalyst) x (transfer efficiency, 70%) x (1 - overall control efficiency, 98%)

iii. To determine compliance with Condition 1.1.6(a)(ii), HAP emissions from the affected coating line shall be calculated based on the following:

HAP Emissions (tons) = (Material Usage, pounds) x (HAP Content of Material, weight percent) / (2000 pounds/ton)

2. The affected coating line may be operated under this construction permit until renewal of the CAAPP permit or a modification of the CAAPP permit has been issued provided a timely application is submitted to amend the CAAPP permit to incorporate the affected coating line.

3a. This permit authorizes a temporary relocation of an existing electro-coat paint operation from Building DD to Building BB, without any increase in emissions to the atmosphere.

b. The existing electro-coat paint operation shall be shut-down when the new painting system commences operation.

It should be noted that this permit has been revised to include an electro-coat paint operation relocated from Building DD to Building BB.

If you have any questions on this, please call Jason Schnepp at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:JMS:psj

cc: Region 2

Attachment 1

PSD Applicability - VOM Netting Analysis

Contemporaneous Time Period of August 1997 Through August 2002

Table I – Emissions Increases and Decreases Associated With The Proposed Modification

Item of Equipment	Past Actual (Tons/Yr)	Future Potential (Tons/Yr)	Emission Change (Tons/Year)	Permit Number
Replace Coating Lines	165.0	164.0	-1.0	02040058

Table II – Source-Wide Creditable Contemporaneous Emission Increases

Item of Equipment	Commencement of Operation Date	Emissions Increase (Tons/Year)	Permit Number
CILCO Cogeneration Facility	2000	41.4	99100101
Genset Laboratory	July 2001	0.1	01040077
Two Gen. Sets (EL-98, EL-99)	July 2002	0.5	02040060
	Total:	42.0	

Table III – Source-Wide Creditable Contemporaneous Emission Decreases

Item of Equipment	Commencement of Operational Change Date	Emissions Decrease (Tons/Year)	Permit Number
Steam Plant Building N[a]	2000	2.0	

Table IV – Net Emissions Change

	(Tons/Year)
Increases and Decreases Associated With The Proposed Modification	-1.0
Creditable Contemporaneous Emission Increases	42.0
Creditable Contemporaneous Emission Decreases	- 2.0
	39.0

[a] This decrease is based on the actual emissions averaged from the two calendar years prior to reduced boiler usage. The boiler usage was reduced due to the replacement by the cogeneration facility.

JMS:psj